

REMARKS

By the present Amendment, Applicants have amended claims 1 and 3 to more appropriately define the invention. Applicants have also added new claims 5-9 to protect additional aspects of the invention. The Amendment is fully supported by the Specification. See, e.g., Specification, p. 2, ll. 3-9, and p. 7, ll. 20-23. Claims 1-9 are pending.

In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as anticipated by Kudo (JP 08-098277), and rejected claim 4 under 35 U.S.C. § 103(a) as unpatentable over Kudo in view of de Buda (U.S. Patent No. 6,549,120 B1). Applicants respectfully traverse these rejections.

In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102, each and every element of the claim in issue must be found, "either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." See M.P.E.P. § 2131, 8th ed., Rev. of May 2004.

The rejection of claims 1-3 under 35 U.S.C. § 102(b) is improper, because Kudo does not teach each and every element of these claims. Particularly, claim 1 recites a power line communication device that includes

an internal electronic control unit connected to a connection point on a direct-current power line, the internal electronic control unit communicating with

an external electronic control unit by a communication signal superimposed on a direct-current supply voltage applied to the direct-current power line; and

an impedance element configured to conduct a direct current to an external load and inserted between the connection point and the external load.

The Examiner considered Kudo's power line 1 as corresponding to Applicants' claimed power line, Kudo's terminal block 10 as corresponding to Applicants' claimed impedance element, and Kudo's lighting load 4 as corresponding to Applicants' claimed external load. Office Action at 2; see also English translation of Kudo, paragraphs [0002] and [0019]. However, the Examiner's allegations are incorrect. First, Kudo's power line 1 is a "commercial power line," not a "direct-current power line" as required by claim 1. Kudo specifically teaches that power-line 1 is supplied with a power supply having a frequency of 50/60Hz. See English translation of Kudo, paragraphs [0002], [0019], and [0022]. Moreover, Kudo's terminal block 10 includes an "impedance upper 12" having such a resonance frequency that "an impedance may be made to increase only to the frequency component (for example, 125kHz)." English translation of Kudo, paragraph [0019]. Kudo does not teach that terminal block 10 is "configured to conduct a direct current" to lighting load 4.

Therefore, Kudo fails to teach at least "an internal electronic control unit connected to a connection point on a direct-current power line, the internal electronic control unit communicating with an external electronic control unit by a communication signal superimposed on a direct-current supply voltage applied to the direct-current power line; and an impedance element configured to conduct a direct current to an external load and inserted between the connection point and the external load," as

recited in claim 1. Claim 1 is allowable over Kudo. Claims 2-3 depend from claim 1 and are also allowable at least because of their dependence from an allowable base claim.

The rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over Kudo in view of de Buda is also improper, because a prima facie case of obviousness has not been established.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. M.P.E.P. § 2143, 8th ed., Revision of May 2004.

As discussed above, Kudo fails to teach or suggest at least "an internal electronic control unit connected to a connection point on a direct-current power line, the internal electronic control unit communicating with an external electronic control unit by a communication signal superimposed on a direct-current supply voltage applied to the direct-current power line; and an impedance element configured to conduct a direct current to an external load and inserted between the connection point and the external load," as recited in claim 1, from which claim 4 depends.

De Buda fails to cure the deficiencies of Kudo. Du Buda discloses a device for sending and receiving data through power distribution transformers in a high voltage

electrical power distribution system. See du Buda, Title and col. 2, ll. 31-44. Du Buda does not teach or suggest that a direct-current power line is used. Moreover, du Buda does not teach or suggest the use of an “impedance element.” Therefore, du Buda also fails to teach or suggest at least “an internal electronic control unit connected to a connection point on a direct-current power line, the internal electronic control unit communicating with an external electronic control unit by a communication signal superimposed on a direct-current supply voltage applied to the direct-current power line; and an impedance element configured to conduct a direct current to an external load and inserted between the connection point and the external load,” as recited in claim 1.

Therefore, Kudo and de Buda, taken or in combination, fail to teach or suggest each and every element of claim 1, from which claim 4 depends. Claim 4 is thus patentable over Kudo and de Buda.

In view of the foregoing, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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